

Choices into Graphs

Count replies, then build two kinds of graphs.

GRADE 2 • TEKS 2.10.B

2.10.B "Excerpt: organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more;"

NAME _____

DATE _____

One picture can mean more than one

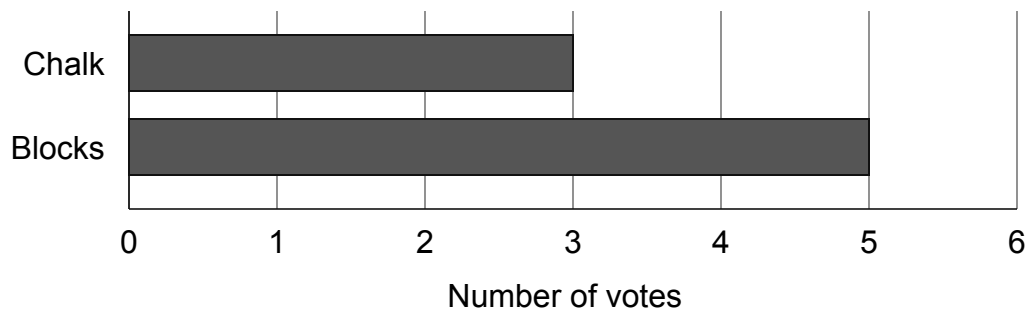
A bar graph starts at zero and uses a number scale. A pictograph uses pictures and a key. Read the scale or key to find the number of votes.

Try it together

A practice group chose chalk 3 times and blocks 5 times. How does the chalk bar show its count?

Practice choices

Choice



Start at 0 and follow the chalk bar. Its end lines up with 3 on the scale. The bar shows 3 votes for chalk.

Use a pencil. All replies are made up for practice. Work through tasks 1-7 in order.

1. Count each choice

These are 20 made-up replies. Each child chose once. Count every activity and fill in the table.

Replies: one choice per child			
1. Build	2. Draw	3. Read	4. Build
5. Puzzles	6. Draw	7. Build	8. Read
9. Draw	10. Build	11. Draw	12. Read
13. Build	14. Puzzles	15. Draw	16. Build
17. Read	18. Build	19. Draw	20. Build

Count the choices

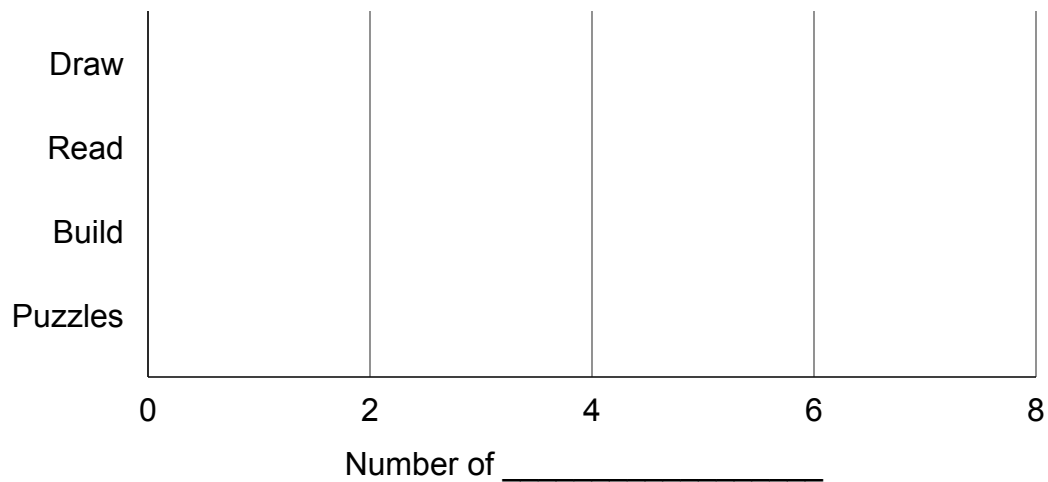
Activity	Number of votes
Draw	
Read	
Build	
Puzzles	

2. Build a bar graph

Use your counts from task 1. Add a title and finish the number-axis label. Draw each bar from 0. Each space on the scale means 2 votes.

Graph title: _____

Activity



3. Check your graph

Which bar ends at 8? What does that number tell about the replies?

4. Show the same data with pictures

Use task 1 again. Add a title. Draw circles in each row. The key says 1 circle means 2 votes.

Graph title: _____

Activity / Pictures

Draw

Read

Build

Puzzles



Key: 1 circle = 2 votes

5. Compare the two graphs

Explain why a bar ending at 6 and a row of 3 circles show the same number.

6. Read a different scale

Look back at the practice graph. Its chalk bar covers 3 spaces. Why does it show 3 votes, not 6?

7. Tell a partner

Tell a partner which activity is most popular. Use both graphs to explain your answer aloud.

TEACHER NOTES

Check each count against the numbered replies. Bars start at zero and match the scale. Circles match the key. Accept sensible titles and labels. Read directions aloud if helpful. Task 6 compares the practice scale of one with the student scale of two.

TASK 1

Draw 6, Read 4, Build 8, Puzzles 2; total 20.

Count the choices

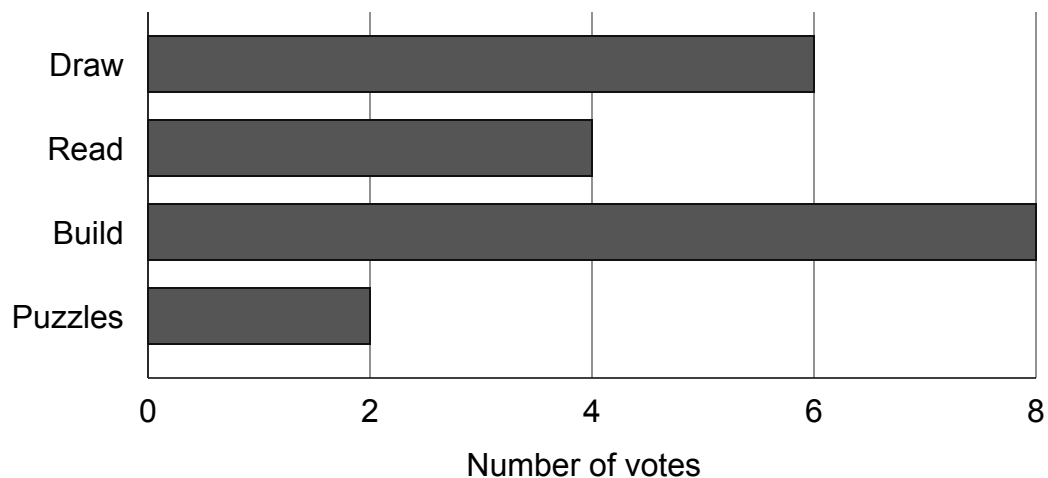
ACTIVITY	NUMBER OF VOTES
DRAW	6
READ	4
BUILD	8
PUZZLES	2

TASK 2

Bars end at Draw 6, Read 4, Build 8, Puzzles 2. Title: Class activity choices. Number axis: Number of votes.

Class activity choices

Activity



TASK 3

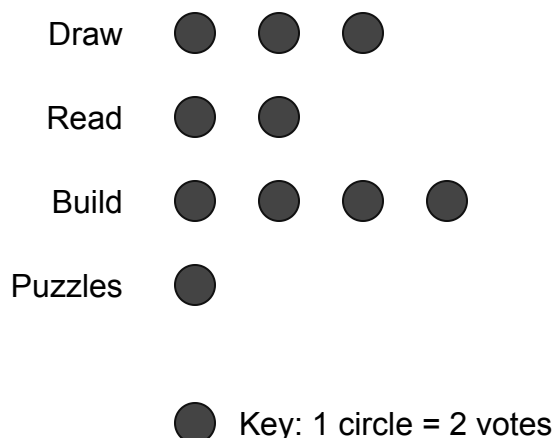
Build; 8 children chose Build.

TASK 4

Draw: 3 circles; Read: 2; Build: 4; Puzzles: 1. Each circle represents 2 votes.

Class activity choices

Activity / Pictures



TASK 5

Each circle means 2 votes. Three circles show $2 + 2 + 2 = 6$ votes, matching the bar. Use the printed key, not the number of circles alone.

TASK 6

Its scale counts by ones. Each space means 1 vote, so 3 spaces show 3 votes. Read the scale on the graph being used; the student graph counts by twos.

TASK 7

Build has 8 votes. Its bar ends at 8; its four circles each mean 2 votes, so $2 + 2 + 2 + 2 = 8$.